

REMARKS

The Examiner is thanked for the thorough examination of the application. No new matter is believed to be added to the application by this Amendment.

Status Of The Claims

Claims 1-4 and 7-14 are pending in the application.

Claims 5-6 have been cancelled.

Claim 8 finds support in the specification at page 8, lines 5-7. Claims 8 and 9 find support in the specification at page 9, lines 13-21. Claim 10 finds support in the specification at page 9, lines 22 and 23. Claim 11 finds support in the specification at page 9, lines 26-28. Claim 12 finds support in the specification at page 10, lines 1-4. Claim 13 finds support in the specification at page 10, lines 6-12. Claim 14 finds support in the specification at page 10, lines 13-16.

Rejections Under 35 U.S.C. §§102(b)/103(a)

Product claims 5 and 6 (which depend upon method claim 1) are rejected under 35 U.S.C. §102(b) as being anticipated by JP '611 (JP 04-286611) or JP '271 (JP 11-048271) or over the Applicant's own disclosure (referred to as "admitted prior art"). Claims 1-6 are rejected under 35 U.S.C. §103(a) as being obvious over the applicant's own disclosure in view of JP '611. To the extent that these rejections apply to cancelled claims 5-6, these rejections are rendered moot.

Applicant respectfully traverses the obviousness rejection to the extent that it applies to claims 1-4.

The present invention pertains to a method for producing a film that reduces wrinkles and non-uniformity without a decrease in productivity. Of the many embodiments of the present invention, claim 1 typically sets forth a process that in a novel fashion combines the steps of casting a dope prepared by dissolving a macromolecular material in a solvent on a casting support; stripping the cast dope from the casting support to form a film; subjecting the stripped film to tentering to stretch or regulate the film in a width direction of the film; and subjecting the tentered film to roll drying to dry the film while conveying the film in such a manner that the film engages with multiple rolls. The solvent content in the film at beginning of the roll drying after the tentering is kept within a range of 3 to 8 wet base % by weight, a surface temperature of the film during the roll drying is kept within a range of Tg (glass transition temperature) of the film – 15°C to the Tg, and a rate of expansion of the film in a conveying direction of the film is kept within a range of – 2% to 3%.

The Examiners allegation of admitted prior art is first considered. At page 3, lines 8-14 of the Office Action, the Examiner asserts that the specification at page 1, lines 8-20 admits that all of the limitations before the “wherein” clause starting at line 9 of claim 1 are prior art.

However, there has been no admission of prior art in the specification. The passage at page 1, lines 8-20 of the specification can be found in the section titled “Description Of The Related Art.” It is impermissible to utilize the Applicant’s own disclosure as prior art without an admission of prior art. Riverwood International Corporation v. R.A. Jones & Co., Inc, 324 F.3d 1346, 66 U.S.P.Q.2d 1331 (C.A.F.C. 2003).

Also, in In re Nomiya, the C.C.P.A. determined that even if there has been an admission of prior art, this admission of prior art will still not render an invention obvious if it points out the source of the problem that the invention solves.

It should not be necessary for this court to point out that a patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is *part* of the "subject matter as a whole" which should always be considered in determining the obviousness of an invention under 35 U.S.C. 103. *In re Antonson*, 47 CCPA 740, 272 F.2d 948, 124USPQ 132; *In re Lennert*, 50 CCPA 753, 309 F.2d 498, 135 USPQ 307. The court must be ever alert not to read obviousness into an invention on the basis of the applicant's own statements; that is, we must view the prior art without reading into that art appellant's teachings. *In re Murray*, 46 CCPA 905, 268 F.2d 226, 122 USPQ 364; *In re Sporck*, 49 CCPA 1039, 301 F.2d 686, 133 USPQ 360. The issue, then is whether the teachings of the prior art would, *in and of themselves and without the benefits of the appellant's disclosure*, make the invention as a whole, obvious. *In re Leonor*, 55 CCPA 1198, 395 F.2d 801, 158 USPQ 20. (Emphasis in original) In re Nomiya 509 F.2d 566, 571, 184 U.S.P.Q. 607, 612 (C.C.P.A. 1975).

In this case there has been no admission of prior art. Even if one assumes *arguendo* that the subject matter discussed in the Description Of The Related Art section is prior art, this disclosure depicts the problem that the invention solves. These teachings therefore cannot be used to provide motivation to combine references.

If, as appellants claim, there is no evidence of record that a person of ordinary skill in the art that the time of the appellant's invention would have expected the problem . . . to exist at all, it is not proper to conclude that the invention which solves this problem, which is claimed as an improvement of the prior art device, would have been obvious to that hypothetical person of ordinary skill in the art. 184 U.S.P.Q. 612, 613.

At pages 3 and 4 of the Office Action, the Examiner turns to JP '611 to supply the teachings in the "wherein" clause at lines 9-13 of claim 1. At page 3, lines 17-18 of the Office Action, the Examiner asserts that JP '611 discloses the temperature of the film during drying.

However, claim 1, lines 10-12 of the present invention recites “a surface temperature of the film during the roll drying is kept within a range of Tg (glass transition temperature) of the film -15°C to the Tg.” However, the English Abstract of JP ‘611 states: “In the final drying chamber 14, while maintaining the surface temperature of the film 15 in the range of +40°C of glass transition temperature . . .”

That is, the present invention dries the film at a temperature below the Tg, but JP ‘611 teaches drying the film at a temperature above the Tg. JP ‘611 thus teaches away from the present invention. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). It is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). A *prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the invention. In re Geisler, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997).

Further, JP ‘611 fails to disclose or suggest “a rate of expansion of the film in a conveying direction is kept within a range of - 2% to 3%”, such as is set forth in claim 1 of the present invention. However, at page 3, lines 21-24 of the Office Action, the Examiner states: “Since the solvent concentration is low, little extension would be possible. Further, given that no attempt is made to stretch the film in such a direction, it would seem rather obvious that the rate of expansion in the conveying direction would be small if in fact any at all is seen.” That is, the Examiner appears to not consider this condition as important.

However, as shown in Comparative Examples 5 and 6 shown in Table 1 of the specification of the present invention, films manufactured under conditions not satisfying “a rate of expansion of the film in a conveying direction is kept within a range of - 2% to 3%” have unfavorable optical properties and cast non-uniformity.

Yet further, the technology and JP ‘611 does not utilize the technical feature that after the film is stripped, the film is subjected to tentering and then subjected to roll drying (*see* claim 1 of the present invention). Page 4, lines 22-25 of the specification also states: “The present invention has been made based on such findings and is made up of concrete idea how to improve cast non-uniformity effectively using the roll drying while avoiding the adverse effects on the improvement of the surface conditions which the tentering fundamentally provides.” The present invention is thus fundamentally different from JP ‘611, which does not utilize a tentering process.

As described in the English translation of JP ‘611 (a partial translation is attached hereto as an Appendix for the Examiner's convenience), multi-stage drying is described as “performing multi-stage drying of the film stripped from the cast part 11 in the first drying zone 12, the second drying zone 13, and the final drying zone 14, the solvent concentration and the surface temperature of the film in the final drying zone 14 and the surface temperature immediately before conveying the film into the final drying zone 14.” As a result, JP ‘611 uses multi-stage drying, not roll drying as in the present invention.

Therefore, the combination of the Applicant's disclosure (if it could be used) with JP ‘611 would fail to motivate one of ordinary skill in the art to produce claim 1 of the present invention. A *prima facie* case of obviousness has not been made. Claims depending upon claim

1 are patentable for at least the above reasons. These rejections are overcome and withdrawal thereof is respectfully requested.

Foreign Priority

The Examiner has acknowledged foreign priority in the Office Action of March 8, 2006.

The Drawings

The Examiner is respectfully requested to indicate whether the drawing figures are acceptable in the next official action.

Conclusion

The Examiner's rejections have been overcome, obviated or rendered moot. No issues remain. It is believed that a full and complete response has been made to the outstanding Office Action. The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert E. Goozner, Ph.D. (Reg. No. 42,593) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petitions for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$120.00 is attached hereto.

Application No. 10/662,390
Amendment dated July 10, 2006
Reply to Office Action of March 8, 2006

Docket No.: 0879-0415P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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Attachment: Partial English translation of JP 04-286611